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AN - 1997-092628 [09]  
 AP - JP19950139089 19950606  
 CPY - MATU  
 DC - A85 L03  
       - X16  
 DW - 199709  
 IC - H01M10/40  
 IN - EDA N; ISHIDA A; NISHIMURA M; OGAWA M  
 LNKA- 1997-029727; 1997-076519  
 MC - A11-B09A2 A12-E06 L03-E01B5 L03-E01C  
       - X16-B01F1  
 PA - (MATU ) MATSUSHITA DENKI SANGYO KK  
 PN - JP8329983                   A 19961213 DW199709  
 PR - JP19950139089 19950606  
 XIC - H01M-010/40  
 AB - Li battery is formed by lamination of polymer electrolyte combined  
       positive electrode (1), low ionic conductive electrolyte layer (2),  
       high ionic conductive electrolyte layer (3), and metal Li (4).  
       - ADVANTAGE :  
       Li polymer battery can suppress internal shortage caused by dendrite  
       shape Li.  
 INW - EDA N; ISHIDA A; NISHIMURA M; OGAWA M  
 IW - LITHIUM POLYMER BATTERY SUPPRESS INTERNAL SMOOTH FORMING LAMINATE  
       ELECTROLYTIC COMBINATION POSITIVE ELECTRODE LOW ION CONDUCTING HIGH  
       METAL LITHIUM@  
 IWW - LITHIUM POLYMER BATTERY SUPPRESS INTERNAL SMOOTH FORMING LAMINATE  
       ELECTROLYTIC COMBINATION POSITIVE ELECTRODE LOW ION CONDUCTING HIGH  
       METAL LITHIUM@  
 NC - 1  
 NPN - 1  
 OPD - 1995-06-06  
 PAW - (MATU ) MATSUSHITA DENKI SANGYO KK  
 PD - 1996-12-13  
 TI - Lithium polymer battery suppression internal smoothness - formed by  
       laminating polymer electrolyte combined positive electrode, low ionic  
       conductive electrolyte, high ionic conductive electrolyte and metal  
       lithium@.  
 A01 - [001] 018; P0000  
       - [002] 018; ND01; N9999 N7192 N7023; K9483; Q9999 Q7818; Q9999 Q8764;  
       Q9999 Q7341 Q7330; Q9999 Q7409 Q7330; K9416; K9701 K9676; K9712 K9676

Title: **JP08329983A2: LITHIUM BATTERY**

DerwentLithium polymer battery suppression internal smoothness - formed by laminating

Title: polymer electrolyte combined positive electrode, low ionic conductive electrolyte, high ionic conductive electrolyte and metal lithium.

Country: JP Japan

Kind: A

Inventor: NISHIMURA MASARU;

OGAWA MASAHIKO;

ISHIDA AKIKO;

EDA NOBUO;

Assignee: MATSUSHITA ELECTRIC IND CO LTD

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Published: 1996-12-13 / 1995-06-06

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JP1995000139089

Application

Number:

IPC Code: Advanced: [H01M 10/40](#);

Core: [H01M 10/36](#);

IPC-7: [H01M 10/40](#);

Priority: 1995-06-06 JP1995000139089

Number:



Abstract: PURPOSE: To restrict the generation of internal short-circuit due to the lithium dendrite in a lithium polymer secondary battery.

CONSTITUTION: At least two layers of lamination polymer electrolyte layers 2, 3 having different ion conductivity are arranged between a negative electrode 4 for a lithium battery and a polymer electrolyte compound positive electrode 1 to form the lithium battery. The electrolyte layers are arranged so that the electrolyte layer, arranged in the negative electrode side has the ion conduction higher than that of the electrolyte layer, arranged in the positive electrode side.

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Family: None

Forward references: Go to Result Set: [Forward references \(2\)](#)

PDF	Patent	Pub.Date	Inventor	Assignee	Title
	<a href="#">US6413675</a>	2002-07-02	Harada; Gaku	NEC Corporation	<a href="#">Multi layer electrolyte and cell using the same</a>
	<a href="#">US6365300</a>	2002-04-02	Ota; Nobuhiro	Sumitomo Electric Industries, Ltd.	<a href="#">Lithium secondary battery</a>

Other Abstract Info: [CHEMABS 126\(09\)120098E](#) [CAN126\(09\)120098E](#) [DERABS C97-092628](#) [DERC97-092628](#)



## PATENT ABSTRACTS OF JAPAN

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(71) Applicant: MATSUSHITA ELECTRIC IND CO  
LTD

(72) Inventor: NISHIMURA MASARU  
OGAWA MASAHIKO  
ISHIDA AKIKO  
EDA NOBUO

(54) LITHIUM BATTERY

(57) Abstract:

PURPOSE: To restrict the generation of internal short-circuit due to the lithium dendrite in a lithium polymer secondary battery.

CONSTITUTION: At least two layers of lamination polymer electrolyte layers 2, 3 having different ion conductivity are arranged between a negative electrode 4 for a lithium battery and a polymer electrolyte compound positive electrode 1 to form the lithium battery.

The electrolyte layers are arranged so that the electrolyte layer, arranged in the negative electrode side has the ion conduction higher than that of the electrolyte layer, arranged in the positive electrode side.

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